DOCUMENT RESUME

ED 162 563 HE 010 640

AUTHOR	Brown, George H.
TITLE	Bachelor's Degree Awards to Women.
INSTITUTION	National Center for Education Statistics (DHEW), Washington, D.C.
REPORT NO	NCES-78-336B
PUB DATE	78
NOTE	13p.; Second in a series on degree awards to women
AVAILABLE FROM	National Center for Education Statistics, U.S. Department of Health, Education, and Welfare, 400 Maryland Ave., S.W., Washington, D.C. 20202
EDRS PRICE	MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS	*Bachelors Degrees; College Graduates; *College Majors; Comparative Analysis; Enrollment Trends; *Females; Higher Education; Intellectual Disciplines; Postsecondary Education As a Field of Study; Statistical Data; *Trend Analysis; *Undergraduate Study; *Womens Education

ABSTRACT

The representation of women among bachelor's degree recipients in the academic years 1970-71 and 1975-76 is compared and data on the intervening years are appended. The total number of bachelor's degrees awarded in the United States in 1971 was 846,000, of which about 43 percent were awarded to women. In 1976, the total was 934,000, and the number awarded to women had increased to about 46 percent. In actual numbers, about 426,000 women and 509,000 men received bachelor's degrees in 1976. There appears to be very little difference between men and women in terms of the total number of bachelor's degrees awarded. The representation of women among degree recipients varies greatly by discipline division. Disciplines in which women most and least predominated are listed, and the trends are briefly analyzed. In addition to presenting year-by-year proportions and numbers of women in each field, the distribution of women and men across discipline divisions is provided. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

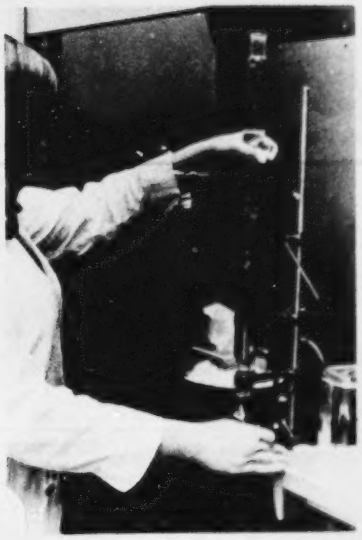
National Center for Education Statistics

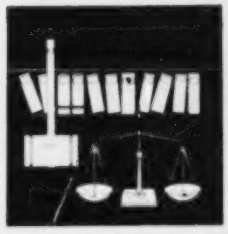
ED162563

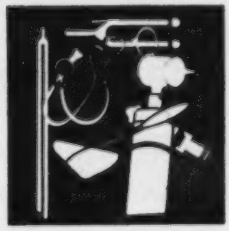
HE

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

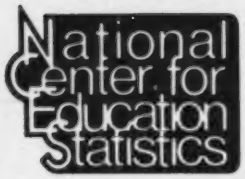






BACHELOR'S DEGREE AWARDS TO WOMEN

HE 010640



BACHELOR'S DEGREE AWARDS TO WOMEN

by
George H. Brown

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Joseph A. Califano, Jr., *Secretary*

Education Division
Mary F. Berry, *Assistant Secretary for Education*

National Center for Education Statistics
Marie D. Eldridge, *Administrator*

NATIONAL CENTER FOR EDUCATION STATISTICS

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries."--Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

BACHELOR'S DEGREE AWARDS TO WOMEN

by
George H. Brown

In recent years, much has been written both in the popular press and in scholarly publications about the changing roles of men and women in our society. Women are being encouraged to broaden their horizons and to break out of traditional female roles. Men, too, are being urged to overcome any biases they may have regarding the potentialities of each sex.

This report examines certain changes which have occurred, possibly in response to the influences cited above, in the domain of higher education. Specifically, this report compares the representation of women among bachelor's degree recipients in the academic years 1970-71 and 1975-76. To enhance readability, each academic year will be referred to by the calendar year in which it ends (e.g., 1971). Data for the years between 1971 and 1976 are presented in the appendix.

Overview

The total number of bachelor's degrees awarded in the United States[1/] in 1971 was 846,000, of which about 43 percent were awarded to women. In 1976, the total number of bachelor's degrees awarded was 934,000, and the number awarded to women had increased to about 46 percent. In actual numbers, about 426,000 women and 509,000 men received bachelor's degrees in 1976. If the data are examined on a year-by-year basis (see appendix), it is evident that women's percentage representation increased slightly in each of the 6 years under consideration. As their representation approaches the percentage which women constitute of the college age population, it is not surprising that the rate of increase would diminish. Increases beyond that point would be unlikely.

1/ Includes outlying territories, such as Guam and Puerto Rico, which account for approximately 1 percent of the total number of degrees awarded.

It appears, then, that in terms of the total number of bachelor's degrees awarded (without respect to discipline division), there is very little difference between men and women.

Field of Study[2/]

The representation of women among degree recipients varies greatly by discipline division (see table 1). In 1971, women predominated (accounted for more than half the degree awards) in eight fields -- home economics, library science, health professions, foreign languages, education, letters, fine and applied arts, and area studies.

The discipline divisions in which women's representation was lowest (less than 20 percent) in 1976 were:

Military science	.2
Engineering	3.2
Agriculture and natural resources	18.3
Law	18.8
Physical sciences	19.2
Architecture and environmental design	19.2
Business and management	19.8
Computer and information sciences	19.8

Although these same fields were also the lowest ranking fields (for women) in 1971, appreciable growth (in percentage points) occured in certain fields. The representation of women in business and management increased from 9 percent to 20 percent, in law from 5 percent to 19 percent, and in agriculture and natural resources from 4 percent to 18 percent. It is of interest to note that at least nominal increases in women's percentage representation were evident in all but 5 of the 24 fields.

The fields in which women are most and least represented tend to be consistent with what one would predict on the basis of traditional male and female roles in our society. Changes are taking place, however, and a clear trend exists for women's percentage representation to increase most in those fields in which they have traditionally been least represented. In the tabulation on page 4, the fields have been grouped on the basis of percentage representation of women in 1971 and the average percentage point change between 1971 and 1976 is shown for each group.

2/ For detailed information regarding the subfields within each discipline division the following NCES publication should be consulted: Earned Degrees Conferred, 1975-76, Summary Data. This report covers the years 1971-72 through 1975-76. Detailed data for 1970-71 have not been published but can be made available upon request to National Center for Education Statistics (Attention: Dr. George H. Brown) 400 Maryland Avenue, S.W., Washington, D.C. 20202.

Table 1.--Percentages of women among bachelor's degree recipients, by discipline division: Aggregate United States, 1971 and 1976

Discipline division	1971 Total bachelor's degrees awarded	1971 Percent awarded to women	1976 Total bachelor's degrees awarded	1976 Percent awarded to women	Percentage point change
Agriculture and natural resources	12,710	4.2	19,460	18.3	14.1
Architecture and environmental design	5,578	12.0	9,169	19.2	7.2
Area studies	2,497	52.9	3,111	55.5	2.6
Biological sciences	36,033	29.3	54,913	34.8	5.5
Business and management	116,709	9.3	145,035	19.8	10.5
Communications	10,802	35.3	21,282	41.5	6.2
Computer and information sciences	2,388	13.6	5,664	19.8	6.2
Education	177,638	74.4	156,528	72.8	- 1.6
Engineering	50,357	*	46,717	3.2	2.4
Fine and applied arts	30,447	59.7	42,371	60.9	1.2
Foreign languages	20,433	74.8	15,587	76.4	1.6
Health professions	25,484	77.2	54,339	78.8	1.6
Home economics	11,271	97.3	17,523	95.9	- 1.4
Law	545	5.0	531	18.8	13.8
Letters	73,398	61.0	52,292	56.9	- 4.1
Library science	1,013	92.0	843	93.1	1.1
Mathematics	24,918	38.1	16,085	40.7	2.6
Military science	357	*	1,206	*	0.0
Physical sciences	21,549	14.0	21,559	19.2	5.2
Psychology	38,154	44.7	50,363	54.4	9.7
Public affairs and services	9,303	49.1	33,592	43.7	- 5.4
Social Sciences	156,698	37.0	127,936	37.9	.9
Theology	3,744	27.2	5,537	27.3	.1
Interdisciplinary studies	14,084	29.2	32,800	45.0	15.8
All discipline divisions	846,110	43.4	934,443	45.6	2.2

*Less than 1.0 percent

Women's percentage representation in 1971	Discipline division	Average percentage point change in 1976
90-99	Home economics, library science	- .1
80-89	—	-
70-79	Education, foreign languages, health professions	.5
60-69	Letters	- 4.1
50-59	Area studies, fine and applied arts	1.9
40-49	Psychology, public affairs	2.2
30-39	Communications, mathematics, social sciences	3.2
20-29	Biological sciences, theology, interdisciplinary studies	7.1
10-19	Architecture, computer science, physical sciences	6.2
0-9	Agriculture, business and management, engineering, law, military science	8.2

A strong inverse relationship is apparent between size of initial percentage representation and amount of gain. To the extent that this trend continues, the distinctiveness of men's and women's roles in our society will tend to diminish. The concepts of "man's work" and "woman's work" will have progressively less meaning.

The preceding discussion was focused on the proportions of women among bachelor's degree recipients in each field. In this section, the population of women degree recipients is characterized in terms of how they were distributed across discipline divisions. This information, which is presented in table 2, indicates the relative popularity of the different fields.

It is evident from table 2 that the traditionally female field of education continued to be the most popular degree field for women in 1976 as it had been in 1971, although the percentage of women receiving degrees in this field declined from 36 to about 27. This may have stemmed partly from a recognition of the fact that the job market for teachers is declining markedly. Social sciences ranked second in both years under consideration and it, too, showed a decline.

In 1971, the six top ranking fields for women accounted for about 79 percent of all bachelor's degrees awarded to women. The corresponding figure for 1976 was 68 percent, suggesting a slight increase in diversification. Fine and applied arts, a traditionally feminine field, was among the top six in 1971, but in 1976 had been replaced by psychology. The traditionally masculine field of business and management showed a small increase for women: from 3 percent to 7 percent.

The six top ranking fields for men in 1971 accounted for about 74 percent of all bachelor's degrees awarded to men. In 1976, the corresponding percentage was 67, which was quite close to the women's value of 68. Evidently, the amount of diversification of degrees among various fields in 1976 was about the same for women as for men.

Table 2.--Distribution of bachelor's degrees among discipline divisions for men and for women: Aggregate United States, 1971 and 1976

Discipline division	Percentage of degrees awarded to: Women 1971	Women 1976	Men 1971	Men 1976
Agriculture and natural resources	*	*	2.5	3.1
Architecture	*	*	1.0	1.4
Area studies	*	*	*	*
Biological sciences	2.9	4.5	5.3	7.0
Business and management	2.9	6.8	22.1	22.8
Communications	*	2.1	1.5	2.4
Computer and informational science	*	*	*	.9
Education	36.0	26.8	9.5	8.3
Engineering	*	*	10.4	8.9
Fine and applied arts	4.9	6.1	2.6	3.3
Foreign languages	4.1	2.8	1.1	*
Health professions	5.3	10.1	1.2	2.3
Home economics	3.0	3.9	*	*
Law	*	*	*	*
Letters	12.2	7.0	6.0	4.4
Library science	*	*	*	*
Mathematics	2.6	1.5	3.2	1.9
Military science	*	*	*	*
Physical sciences	*	*	3.9	3.4
Psychology	4.6	6.4	4.4	4.5
Public affairs and services	1.2	3.4	1.0	3.7
Social sciences	15.8	11.4	20.6	15.6
Theology	*	*	*	*
Interdisciplinary studies	1.1	3.4	2.1	3.5
All discipline divisions	100.0	100.0	100.0	100.0

*Less than 1.0 percent.
NOTE: Details do not add to 100.0 because of rounding.

A recent report, Doctoral Degree Awards to Women,[3] covers the same time period as this report. It shows that at the doctoral level, women's degrees were still highly concentrated in the traditional women's fields. Since the present report shows appreciable changes at the bachelor's degree level, it is reasonable to expect that similar changes will later manifest themselves at the higher degree levels.

[3] George H. Brown, Doctoral Degree Awards to Women, U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, NCES 78-336A.

APPENDIX

Appendix.-- Percentage of women among bachelor's degree

Discipline division	1970-71		1971-72	
	Total degrees	Percent women	Total degrees	Percent women
Agriculture and natural resources	12,710	4.2	13,560	5.45
Architecture and environmental design	5,578	12.0	6,452	12.01
Area studies	2,497	52.9	2,797	52.48
Biological sciences	36,033	29.3	37,638	29.61
Business and management	116,709	9.3	123,306	9.70
Communications	10,802	35.3	12,340	35.46
Computer and information sciences	2,388	13.6	3,402	13.55
Education	177,638	74.4	192,368	74.07
Engineering	50,357	0.8	51,465	1.04
Fine and applied arts	30,447	59.7	33,886	59.88
Foreign languages	20,433	74.8	19,359	75.05
Health professions	25,484	77.2	28,893	75.65
Home economics	11,271	97.3	12,165	96.48
Law	545	5.0	503	6.56
Letters	73,398	61.0	73,556	60.06
Library science	1,013	92.0	989	93.32
Mathematics	24,918	38.1	23,848	39.09
Military science	357	0.3	379	0
Physical sciences	21,549	14.0	20,887	15.07
Psychology	38,154	44.7	43,421	46.41
Public affairs and services	9,303	49.1	12,746	47.94
Social sciences	156,698	37.0	159,594	36.31
Theology	3,744	27.2	3,882	27.79
Interdisciplinary studies	14,084	29.2	16,674	31.06
All discipline divisions	846,110	43.5	894,110	43.67

recipients, by discipline division: 1970-71 through 1975-76

1972-73		1973-74		1974-75		1975-76	
Total degrees	Percent women	Total degrees	Percent women	Total degrees	Percent women	Total degrees	Percent women
14,819	7.4	16,303	9.7	17,573	14.1	19,460	18.3
6,980	13.2	7,840	14.8	8,238	17.4	9,169	19.2
3,080	52.3	3,203	54.3	3,066	55.1	3,111	55.5
42,672	30.1	48,856	31.5	52,236	33.3	54,913	34.8
128,244	10.8	133,905	13.1	135,455	16.4	145,035	19.8
14,317	36.6	17,096	38.4	19,249	40.5	21,282	41.5
4,305	14.9	4,757	16.4	5,039	19.0	5,664	19.8
195,640	73.5	186,623	73.5	168,749	73.3	156,528	72.8
51,613	1.2	50,693	1.6	47,303	2.2	46,717	3.2
36,109	60.4	40,016	60.2	41,061	61.9	42,371	60.9
19,502	76.0	19,479	76.4	18,172	77.0	15,587	76.4
33,932	77.0	41,869	77.4	49,476	77.8	54,339	78.8
13,640	96.3	15,433	96.4	16,873	96.0	17,523	95.9
474	8.4	494	10.5	436	14.2	531	18.8
71,298	58.9	65,325	58.0	57,933	57.3	52,292	56.9
1,160	94.4	1,164	92.6	1,069	92.5	843	93.1
23,223	40.2	21,813	41.0	18,346	42.0	16,085	40.7
272	-	328	0.3	390	-	1,206	0.2
20,809	15.0	21,287	16.6	20,896	18.4	21,559	19.2
48,096	47.8	52,256	50.5	51,436	52.7	50,363	54.4
18,009	46.9	24,264	43.5	28,597	45.6	33,592	43.7
157,702	36.3	152,203	36.6	136,773	37.4	127,936	37.9
3,548	25.7	4,231	28.1	4,818	27.4	5,537	27.3
20,810	34.1	24,938	37.1	28,479	42.2	32,800	45.0
930,272	43.9	954,376	44.4	931,663	45.4	934,443	45.6